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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,974	02/15/2002	Richard E. Fiegle	DP-304988	9211
22851	7590	08/30/2005	EXAMINER	
DELPHI TECHNOLOGIES, INC. M/C 480-410-202 PO BOX 5052 TROY, MI 48007			VON BUHR, MARIA N	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,974

Applicant(s)

FIEGLE ET AL.

Examiner

Maria N. Von Buhr

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2002 and 20 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02152002&11202003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are pending in this application.
2. Examiner acknowledges receipt of Applicant's information disclosure statements, received 15 February 2002 and 20 November 2003. These submissions are in compliance with the provisions of 37 CFR §1.97. Accordingly, they have been taken into consideration for this Office action.
3. Examiner acknowledges receipt of Applicant's formal drawings. These drawings are acceptable.
4. The following is a quotation of the second paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which Applicant regards as his invention.
5. Claim 19 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In this claim, there is no clear and proper antecedent basis for "the serial port," because the dependency of the claim is apparently in error.
6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by Applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 7 and 8 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by Lyons (U.S. Patent No. 4,181,939; see at least, Figs. 7, 11 and 11(f); with associated text at cols. 6-7, 11 and 17).

As per claims 1 and 2, Lyons teaches an arrangement wherein actuation of motors (839 and 849) is counted (counters 822 and 822'; col. 17, lines 46-51) and accumulated (810) for transmission as requested to an external microprocessor (computer 840) through a communication port (UARTs 879 and 870, and bus interface 843). As per claim 3, Lyons further teaches the communication port to be serial

(col. 11, lines 29-37). As per claim 7, the transmission of information in the Lyons system is in 8-bit format (col. 11, lines 53-55). As per claim 8, the arrangement of the Lyons system further includes a multiplexer (820).

8. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lyons (U.S. Patent No. 4,181,939), as applied to claims 1-3, 7 and 8 above, further in view of Miesterfeld et al. (U.S. Patent No. 4,739,323), which discloses the well-known use of an SPI for communicating between elements of a control system. It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such a serial port interface in the system of Lyons, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

10. Claims 5, 9-11, 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lyons (U.S. Patent No. 4,181,939), as applied to claims 1-3, 7 and 8 above, further in view of Applicant's admitted prior art, at page 4 of the instant specification, wherein Applicant admits that "in a typical HVAC system, actuators of the system include a DC motor and a gear reduction. The gear reduction typically connects a shaft of the DC motor to another shaft attached to a door that is used to direct air flow. As previously mentioned, doors are used to mix hot and cold air to produce a desired temperature and may also be used to direct mixed air to a desired location (e.g., panel, floor, and/or windshield), as well as control recirculation. The accurate positioning of the doors is desirable for the HVAC system to produce a desired in-car environment." It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such actuator motors in the system of Lyons, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

11. Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lyons (U.S. Patent No. 4,181,939), further in view of Applicant's admitted prior art, at page 4 of the instant specification, as

applied to claim 11 above, further in view of Miesterfeld et al. (U.S. Patent No. 4,739,323), similarly as applied above with regard to claim 4.

12. Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lyons (U.S. Patent No. 4,181,939), as applied to claims 1-3, 7 and 8 above, further in view of Dao (U.S. Patent No. 6,304,803; see at least, the abstract; Fig. 2, with associated text at col. 4, line 16 - col. 6, line 50).

Although Lyons teaches the instant invention substantially as claimed, as addressed above, as per claim 6, Lyons does not apply the disclosed arrangement to the control of motors/actuators in an HVAC system. In this regard, Dao teaches an HVAC control system for an automobile, wherein information regarding the status of various elements of the HVAC system are collected by a first controller (microprocessor 110) and transmitted to a second microprocessor, thereby "off-loading" such data collection from the second microprocessor to the first controller. However, Dao is not specific about the actual control of the various disclosed actuators. In this regard, it would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to apply the Lyons arrangement for the actuator control of Dao, since Lyons teaches a resultant increased reliability of machine control.

13. Claim 13, 16-18, 20 and 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lyons (U.S. Patent No. 4,181,939), in view of Applicant's admitted prior art, at page 4 of the instant specification, as applied to claim 9 above, further in view of Dao (U.S. Patent No. 6,304,803), similarly as presented above with regard to claim 6.

14. Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lyons (U.S. Patent No. 4,181,939), in view of Applicant's admitted prior art, at page 4 of the instant specification, further in view of Dao (U.S. Patent No. 6,304,803), as applied to claim 16 above, further in view of Miesterfeld et al. (U.S. Patent No. 4,739,323), similarly as presented above with regard to claim 4.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. §103(a), Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for Examiner to consider the applicability of 35 U.S.C. §103(c) and potential 35 U.S.C. §102(e), (f) or (g) prior art under 35 U.S.C. §103(a).

16. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Applicant is advised to carefully review the cited art, as evidence of the state of the art, in preparation for responding to this Office action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria N. Von Buhr whose telephone number is 571-272-3755. The examiner can normally be reached on M-F (9am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maria N. Von Buhr
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